

## IN THE CLAIMS

1. (Currently Amended) A vaccine composition containing proteolipidic cochlear structures obtained from outer ~~membranes~~ membrane vesicles of live microorganisms selected from the group consisting of bacterial, protozoan or animal cell organism and additionally contain one or more antigens.
2. (Currently Amended) The vaccine composition according to ~~Claim~~ claim 1, with said cochlear structures comprised of proteins, lipids and ~~pathogens~~ pathogen associated molecular pattern.
3. (Currently Amended) The vaccine composition according to ~~Claim~~ claim 2, with said ~~pathogens~~ pathogen associated molecular pattern added at a concentration between 1% and 30% of the protein weight of the cochlear structure.
4. (Currently Amended) The vaccine composition according to ~~Claim~~ claim 3, with said ~~pathogens~~ pathogen associated molecular pattern being selected from the group consisting of lipopolysaccharides, peptidoglycan, lipoprotein, teichoic acid, flagellin and lipophosphoglycane.
5. (Cancelled)

6. (Currently Amended) The vaccine composition according to ~~Claim 5~~ claim 1, characterized by the fact that said bacterium is one of Gram negative or Gram positive.

7. (Currently Amended) The vaccine composition according to ~~Claim 6~~ claim 6, characterized by the fact that said Gram negative bacterium comprises one of the, ~~neisseria~~ Neisseria, ~~haemophilus~~ Haemophilus, ~~salmonella~~ Salmonella, ~~vibrio~~ Vibrio, ~~pseudomona~~ Pseudomona or ~~shigella~~ Shigella genus.

8. (Currently Amended) The vaccine composition according to ~~Claim 6~~ claim 6, characterized by the fact that said Gram positive bacterium may be of the ~~streptococcus~~ Streptococcus or ~~staphylococcus~~ Staphylococcus genus.

9. (Currently Amended) The vaccine composition according to ~~Claim~~ claim 1, ~~5~~, characterized by the fact that said live organism is the ~~protozoe~~ protozoan of the *Leishmania* genus.

10. (Currently Amended) The vaccine composition according to ~~Claim 5~~ claim 1, characterized by the fact that the cochlear structures are extracted from a tumor cell.

11. (Currently Amended) The vaccine composition according to ~~Claim 51~~  
claim 1, wherein the antigens are in a ratio with the proteins present in the  
cochlear structure of 0.2 to 2.7  $\mu\text{g}$  to 3 to 9  $\mu\text{g}$  of protein.

12. (Currently Amended) The vaccine composition according to ~~Claim 51~~  
claim 1, wherein the antigens are selected from the group consisting ~~in:~~ of  
natural or recombining proteins, peptides, saccharides, nucleic acids,  
conjugates or ~~alergenies~~ allergens.

13. (Currently Amended) The vaccine composition according to ~~Claim 42~~  
claim 12, wherein the antigen is a protein from the hepatitis C virus.

14. (Currently Amended) The vaccine composition according to ~~Claim 42~~  
claim 12, wherein the antigen is the recombining protein P1 from  
~~papilomavirus~~ papillomavirus.

15. (Currently Amended) The vaccine composition according to ~~Claim 42~~  
claim 12, wherein the antigen is the epitope T or B.

16. (Currently Amended) ~~A~~ The vaccine adjuvant comprising proteolipidic  
cochlear structures obtained from vesicles found in the outer membranes of  
vesicles of live organisms selected from the group consisting of bacterium,  
protozoan or an animal cell.

17. (Currently Amended) The vaccine adjuvant according to ~~Claim 16~~ claim 16, wherein said cochlear structures comprise proteins, lipids, and pathogens associated molecular pattern .

18. (Currently Amended) The vaccine adjuvant according to ~~Claim 17~~ claim 17, wherein said pathogens associated molecular pattern are found at a concentration between 1% and 30 % of the protein weight of the structure.

19. (Currently Amended) The vaccine adjuvant according to ~~Claim 17~~ claim 17, wherein said ~~pathogens~~ pathogen associated molecular pattern are selected from the group consisting of lipopolysaccharide, peptidoglycan, lipoprotein, teichoic acid, flagellin and lipophosphoglycan.

20. (Cancelled)

21. (Currently Amended) The vaccine adjuvant according to ~~Claim 20~~ claim 16, wherein said bacterium is a Gram negative or a Gram positive.

22. (Currently Amended) The vaccine adjuvant according to ~~Claim 24~~ claim 21, wherein said Gram negative bacterium is one of ~~neisseria~~ Neisseria, ~~haemophilus~~ Haemophilus, ~~salmonella~~ Salmonella, ~~vibrio~~ Vibrio, ~~pseudomona~~ Pseudomona or ~~shigella~~ Shigella genus.

23. (Currently Amended) The vaccine adjuvant according to ~~Claim 24~~ claim 21, wherein said Gram positive bacterium is one of the ~~streptococcus~~ Streptococcus or ~~staphylococcus~~ Staphylococcus genus.

24. (Currently Amended) The vaccine adjuvant according to ~~Claim 20~~ claim 16, characterized by the fact that said live organism is a protozoan organism from the *Leishmania* genus.

25. (Currently Amended) The vaccine adjuvant according to ~~Claim 20~~ claim 16, said cochlear structures being derived from- comprise a tumor cell cochlear structures.

26. (Currently Amended) A vaccine composition containing vesicles obtained from the outer membrane of live organisms selected from the group consisting of bacterium, protozoan or an animal cell.

27. (Currently Amended) The vaccine composition according to ~~Claim~~ claim 26, said outer membrane vesicles comprising proteins, lipids and molecular pathogens pathogen associated molecular pattern .

28. (Currently Amended) The vaccine composition according to Claim claim 27, said pathogens pathogen associated molecular pattern are in a concentration of between 1% and 7% of the protein weight of the structure.

29. (Currently Amended) The vaccine composition according to Claim claim 27, said pathogens pathogen associated molecular pattern selected from the group consisting of lipopolysaccharide, ~~peptidoglycane~~ peptidoglycon, teichoic acid, flagellin and lipophosphoglycane.

30. (Cancelled)

31. (Currently Amended) The vaccine composition according to Claim ~~30~~ claim 26, said bacterium is a Gram negative or a Gram positive.

32. (Currently Amended) The vaccine composition according to Claim claim 31, said Gram negative bacterium is one of ~~neisseria~~ Neisseria, ~~haemophilus~~ Haemophilus, ~~salmonella~~ Salmonella, ~~vibrio~~ Vibrio, ~~pseudomona~~ Pseudomona or ~~shigella~~ Shigella genus.

33. (Currently Amended) The vaccine composition according to Claim claim 31, characterized by the fact that said Gram positive bacterium is one of the ~~streptococcus~~ Streptococcus or ~~staphylococcus~~ Staphylococcus genus.

34. (Currently Amended) The vaccine composition according to ~~Claim 30~~ claim 26, said live organism is a protozoan organism from the *Leishmania* *Leishmania* genus.

35. (Currently Amended) The vaccine composition according to ~~Claim 30~~ claim 26, with the outer membrane vesicles ~~derived from~~ comprise a tumor cell vesicles.

36. (Currently Amended) The vaccine adjuvant containing vesicles extracted from the outer membrane of live organisms selected from the group consisting of bacterium, protozoan or an animal cell.

37. (Currently Amended) The vaccine adjuvant according to ~~Claim~~ claim 36 said outer membrane vesicles comprising proteins, lipids, and molecular structures associated to pathogens.

38. (Currently Amended) The vaccine adjuvant according to ~~Claim~~ claim 37, with said molecular structures associated to pathogens are in a concentration between 1% and 7% of the protein weight of the structure.

39. (Currently Amended) The vaccine adjuvant according to ~~Claim~~ claim 37, said pathogens associated molecular pattern being selected from the group

consisting of lipopolysaccharide, ~~peptidoglycane~~ peptidoglycon, teichoic acid, flagellin and lipophosphoglycane.

40. (Cancelled)

41. (Currently Amended) The vaccine adjuvant according to ~~Claim 40~~ claim 36, said bacterium is a Gram negative or a Gram positive.

42. (Currently Amended) The vaccine adjuvant according to ~~Claim~~ claim 41, said Gram negative bacterium is one of ~~neissera~~ Neissera, ~~haemophilus~~ Haemophilus, ~~salmonella~~ Salmonella, ~~vibrio~~ Vibrio, ~~pseudomona~~ Pseudomona or ~~shigella~~ Shigella genus.

43. (Currently Amended) The vaccine adjuvant according to ~~Claim~~ claim 41, said Gram positive bacterium is one of the ~~streptococcus~~ Streptococcus or ~~staphylococcus~~ Staphylococcus genus.

44. (Currently Amended) The vaccine adjuvant according to ~~Claim 40~~ claim 36, said live organism is a protozoan from the ~~Leishmania~~ Leishmania genus.

45. (Currently Amended) The vaccine adjuvant according to ~~Claim 40~~ claim 36, the outer membrane vesicles ~~being derived from~~ comprise a tumor cell vesicles.



46. (Currently Amended) A method for obtaining cochlear structures from vesicles found in the outer membrane of live organisms, comprising the following steps:

(a) preparing from outer membrane vesicles of live organisms selected from a bacterial, protozoan and animal cell organism, of a solution with a total protein concentration between 3 and 6 mg/mL, and adding a non-ionic detergent is ~~added at~~ in a concentration 10 times that of the proteins;

(b) filtering through a membrane with a pore size of 0.2  $\mu\text{m}$ , with the aim of sterilizing and eliminating vesicle aggregates;

(c) executing a rotational dialysis or a tangential filtration against a solution containing concentrations of a multivalent ion, particularly  $\text{Ca}^{2+}$ ,  $\text{Zn}^{2+}$ , or  $\text{Mg}^{2+}$ , between 2.5 and 6.5 mM, at conditions buffered at  $\text{pH } 7.4 \pm 0.2$ ; and

(d) mechanically treating the resultant cochlear structures to homogenize the size of the particles.

47. (Currently Amended) The vaccine composition according to ~~Claim~~ claim 1, wherein the composition is administrable mucosally, parenterally, or through a combination of both methods.

48. (Currently Amended) The vaccine composition according to ~~Claim~~ claim 26, wherein the composition is administrable mucosally, parenterally, or through a combination of both methods.

49. (Currently Amended) The adjuvant according to ~~Claim~~ claim 16, wherein the composition is administrable mucosally, parenterally, or through a combination of both methods.

50. (Currently Amended) The adjuvant according to ~~Claim~~ claim 36, wherein the composition is administrable mucosally, parenterally, or through a combination of both methods.

51. (Previously Presented) The vaccine composition of claim 1, further comprising at least one or more antigens.

52. (Previously Presented) The vaccine composition of claim 51, further comprising an excipient.

53. (Currently Amended) The method of claim 46, further comprising adding antigens or ~~molecular structure associated to pathogens~~ pathogen associated molecular pattern to the solution.

54. (Currently Amended) The method of claim 53, following step (a) homogenizing at 0.2 to 2.7  $\mu$ g for each 3 to 9  $\mu$ g of protein for the antigens and from 1 to 30% of the protein concentration ~~for the molecular structures~~ pathogen associated molecular pattern.

55. (Previously Presented) The method of claim 46, wherein the mechanical treating comprises sonication in a water bath at a temperature between 15°C and 25°C for a period of about 45 minutes.

56. (Cancelled)

57. (New) The vaccine composition of claim 26, further comprising at least one or more antigens.

58. (New) The vaccine composition of claim 57, further comprising an excipient.